



Contribution ID: 161

Type: poster

Radiolabeling of insuline with fluorine-18 using a new radiofluorination technique

Thursday 22 September 2011 17:30 (1h 30m)

As is known well, insulin is a very important hormone in the body and in case of its absent or its level in the blood is low, glucose is not taken up by most body cells and the body begins to use fat as an energy source. As its level is a central metabolic control mechanism, its status is also used as a control signal to other body systems. For this reason, the sensitively measurement of insulin level in the body is a very important tool in insulin related studies. On the other hand, insulin improves tumor uptake of 2-fluoro-2-deoxy-D-glucose radiolabeled with ^{18}F (^{18}F FDG) and its role in diabetic rats with mammary carcinoma was reported in literature. In this context, insulin was earlier labeled by different radionuclides such as ^{111}In , ^{125}I , ^{18}F . It should be also noted that radiolabeled form of insulin has expressed the same activity of original insulin in the metabolism. In this study, we have tried to label insulin by using an easier and faster radiofluorination technique. For this, SelectfluorTM has been tried first to be labeled with ^{18}F , then it was used to label insulin. The radiofluorination yield of insuline was found very satisfied.

Author: Mrs CETIN, Cigdem (Ege University, Faculty of Sciences, Department of Chemistry, Division of Nuclear Chemistry, Bornova, Izmir 35100, Turkey)

Co-author: Mrs ÜNAK, Gülcan (Ege University, Faculty of Sciences, Department of Biochemistry, Bornova, Izmir 35100, Turkey)

Presenter: Mrs CETIN, Cigdem (Ege University, Faculty of Sciences, Department of Chemistry, Division of Nuclear Chemistry, Bornova, Izmir 35100, Turkey)

Session Classification: Poster Section 2

Track Classification: Radiopharmaceuticals Chemistry